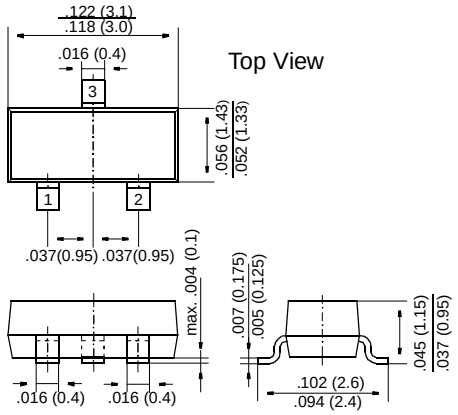
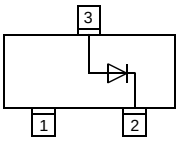
BAL99, BAV99

Small Signal Diodes

SOT-23

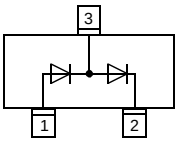


Dimensions in inches and (millimeters)



Top View

BAL99
Marking: JF



Top View

BAV99
Marking: JE

FEATURES



- Silicon Epitaxial Planar Diode
- Fast switching diodes, especially suited for automatic insertion.
- This diode is also available in other configurations including a dual common cathode with type designation BAV70 and a dual common anode with type designation BAW56.

MECHANICAL DATA

Case: SOT-23 Plastic Package
Weight: approx. 0.008 g

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings for a single diode at 25 °C ambient temperature unless otherwise specified.

	Symbol	Value	Unit
Reverse Voltage, Peak Reverse Voltage	V_R, V_{RM}	70	V
Forward Current (continuous)	I_F	250	mA
Non-Repetitive Peak Forward Current at t = 1 µs at t = 1 ms at t = 1 s	 I_{FSM} I_{FSM} I_{FSM}	 2 1 0.5	 A A A
Power Dissipation at T_{amb} = 25 °C	P_{tot}	350[1)]	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_S	–65 to +150	°C

[1)] Device on fiberglass substrate, see layout.

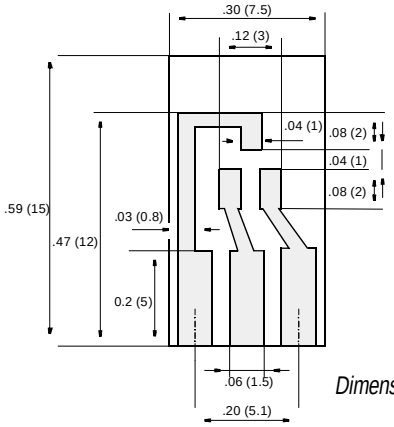
GENERAL SEMICONDUCTOR®

ELECTRICAL CHARACTERISTICS

Ratings for one diode at 25 °C ambient temperature unless otherwise specified

	Symbol	Min.	Typ.	Max.	Unit
Forward Voltage at I_F = 1 mA at I_F = 10 mA at I_F = 50 mA at I_F = 150 mA	 V_F V_F V_F V_F	 – – – –	 – – – –	 0.715 0.855 1.0 1.25	 V V V V
Leakage Current at V_R = 70 V at V_R = 70 V, T_j = 150 °C at V_R = 25 V, T_j = 150 °C	 I_R I_R I_R	 – – –	 – – –	 2.5 100 30	 µA µA µA
Capacitance at $V_F = V_R$ = 0; f = 1 MHz	C_{tot}	–	–	1.5	pF
Reverse Recovery Time from I_F = 10 mA to I_R = 10 mA measured at I_R = 1 mA, R_L = 100 Ω	t_{rr}	–	–	6	ns
Thermal Resistance Junction to Ambient Air	R_{thJA}	–	–	430[1)]	K/W

[1)] Device on fiberglass substrate, see layout.



Dimensions in inches (millimeters)

Layout for R_{thJA} test

Thickness: Fiberglass 0.059 in (1.5 mm)
Copper leads 0.012 in (0.3 mm)